Creating a Safety Culture in a High Reliability Organization

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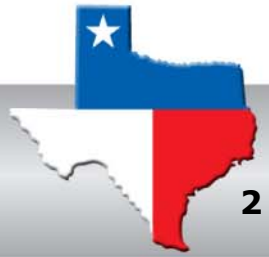
Core Values

- We will perform all work safely and compliantly
- We will protect our workers, the public, and the environment

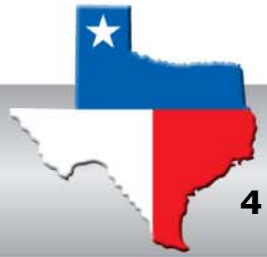


Principles

- Safety is a line management responsibility
- Build safety and compliance in up-front
- Field ESHQ resources are enablers, not policemen
- All injuries are preventable
- Workforce needs to be engaged

Key Steps

- Set expectations
- Communicate
- Demonstrate commitment
- Build trust



Management Expectations

- Zero injuries
- Line management is responsible and accountable
- "Safe and compliant" applies to <u>all</u> work, regardless of who performs it (i.e., subcontractors)
- Prepare for the unknown
- Stop work and re-analyze hazards when conditions change

Workforce Expectations

- Employees and subcontractors expect to work in a safe and secure environment
- Employees expect to actively participate in ensuring their own safety
- Employees feel empowered to raise safety concerns without fear of retribution

Safety Culture Tools

- Safety timeout
- First line supervisors
- Leading indicators
- Field presence
- Safety Trained Supervisors
- Recognition, positive reinforcement
- Safety meetings, toolbox meetings

High Reliability Organizations

- Teams that work at a high level of performance
- Increased reliability in individual performance
- A different type of safety culture is required

Characteristics of a HRO

- Preoccupation with failures rather than successes
- Reluctance to simplify interpretations
- Sensitivity to operations
- Commitment to resilience
- Deference to expertise

Weick, K. & K. Sutcliffe, 2001, *Managing the Unexpected: Assuring High Performance in an age of complexity*

The Key Differences

High Reliability Theory

- Accidents preventable by organizational design and management
- Safety is the priority
- Redundancy enhances prevention
- Decentralized approach gives prompt and flexible response
- "Culture of reliability" encourages uniform and appropriate responses at field level
- Continuous operations and training can maintain high reliability
- *Learning from accidents can be effective and can be supplemented by anticipation and simulations*

Normal Accidents Theory

- Accidents inevitable
- Safety is a competing objective
- Redundancy can cause accidents
- Centralization required to operate complex systems
- Intense operational discipline incompatible with democratic values
- Cannot train for unimagined or politically unpalatable operations
- *Denial of responsibility, faulty reporting, and reconstruction of history cripples learning efforts*

* SAGAN: The Limits of Safety

Safety Leadership

- Leadership is critical
- Leaders communicate a vision
- Leaders create a culture
- You cannot achieve HRO status with Safety Managers

"Low Probability, High Consequence" Events

- **An event that is extremely unlikely to happen but if it should, that consequences are extremely severe**
- **Examples:**
  - Nuclear Reactor accident
  - Gas Refinery explosion
- **Control Sets very comprehensive**
- **Worker attitudes important**

Blending Proven Safety Programs

- Integrated Safety Management
- Behavior Based Safety
- Voluntary Protection Program (VPP)
- Human Performance Improvement

Organizational Learning

- Organizational Learning from events requires substantially better analysis and understanding than most organizations are willing to support

- Information Rich Events

"Mind the Gap!"

"Work-As-Imagined" and "Work-As-Done"

- The problem is not that different images of work exist
- Problems arise when organization is not sufficiently aware of gap between images
- Having a gap is not an indication of a dysfunctional organization -- but not knowing about it, and not learning why it exists, is
- The more ignorance about gap, the more difficult it is to make effective organizational investments in safety, as you may be investing in the wrong thing

Sidney Dekker

HRO Safety Culture Tools

- Incident review boards
- Corporate Assurance Systems
- Causal Factor Analysis
- Differing Professional Opinion process

Conclusion

- Not every company will be a high reliability organization
- But every company can benefit from transitioning from a safety program to a safety culture